

# Specification

**Product Name:** Smart Touch Conference Controller

**Product Model :** HY-6500M5

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**Production Department:** Product Department

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## 1、Product Overview

### 1.1 Product Image



### 1.2 Dimensions and Weight

Main Unit Dimensions (LxWxH)	483×320×90mm ;
Packaging Dimensions (LxWxH)	560×430×160mm ;
Weight	Net Weight: 5.02kg; Gross Weight: 6.56kg ;
Packaging Method	Foam + Carton

### 1.3 Packing List

Serial Number	Name	Number	Unit
1	Power Cable	1	Piece
2	Audio Cable	1	Piece
3	Fuse	2	Piece
4	8-Pin 10-Meter Male-to-Female Cable	1	Piece
5	User Manual	1	Copy

## 2、Product Specifications and Parameters

## 2.1 Product Description

The system utilizes DSP/DDOV digital processing and transmission technology and complies with the IEC60065 international standard. It is equipped with a high-performance ARM Cortex A9 industrial-grade embedded processor with a 1.4GHz clock speed and 1GB of memory, offering faster operation. The system features 8 output interfaces, including 6 with 8-pin connectors and 2 with RJ45 network interfaces (expandable to 8 RJ45 interfaces), supporting connection to up to 240 units. It supports eight conference modes: FIFO (First In, First Out), LIFO (Last In, First Out), quantity limitation, chairman approval (speech request), voice-activated start, timed speech, queued speech, and open discussion.

## 2.2 Functional Parameters

1. Utilizes DSP/DDOV digital processing and transmission technology, complies with IEC60065 international standards.
2. Features an aluminum alloy panel with embedded Mohs hardness level 6 touch glass, equipped with a 4.5" TFT full-fit touch screen and a graphical user interface for easy operation, improving setup efficiency.
3. Equipped with a high-performance ARM Cortex A9 industrial-grade embedded processor, 1.4GHz clock speed, and 1GB of memory for faster operation.
4. Provides 8 unit output interfaces, including 6 with 8-pin connectors and 2 with RJ45 network interfaces (expandable to 8 RJ45 interfaces), supporting connection to 240 units.
5. System capacity supports up to 76,800 units, and supports various connection methods including ring, daisy chain, junction box, and T-type connections.
6. Offers eight conference modes: FIFO (First In, First Out), LIFO (Last In, First Out), quantity limitation, chairman approval (speech request), voice-activated start, timed speech, queued speech, and open discussion.
7. The number of speakers can be set from 1 to 20, with no limit for chairman and VIP units; open discussion mode has no limit and can allow all units to be activated.
8. Uses high-fidelity lossless audio transmission technology with a 48KHz audio sampling frequency and a frequency response range of 20Hz to 20KHz.

9. Features an internal DSP digital audio module with adaptive feedback suppression, digital equalizer, and automatic gain control to minimize interference, distortion, and crosstalk.
10. Includes multiple internal communication and conference service functions, allowing the main unit to receive service requests from conference units.
11. Equipped with a perpetual calendar, speech timing function, and dynamic display of date, day, and time on the screen; the system can automatically synchronize with the computer's date, day, and time.
12. Includes automatic detection functions for chairman, VIP, and representative units, audio detection, button detection, and list display.
13. Utilizes ID addressing, allowing for custom unit numbering to ensure unique IDs and avoid conflicts.
14. Features dual-machine hot backup capability, allowing one main unit to act as a backup; the backup unit automatically takes over if the main unit fails.
15. Supports hot-swappable line connections with automatic repair and quick fault detection without affecting other devices.
16. Includes camera tracking functionality supporting protocols such as PELCO-D, PELCO-P, SONY, SAMSUNG, and tracking controllers, with adjustable, saveable, and callable presets.
17. Provides both RS-232 and RS-485 control interfaces and methods; cameras can be connected in series or parallel.
18. Supports connection of up to 4 HD cameras, with connection to an HD video decoder box for automatic video signal switching and screen freeze functionality.
19. Includes built-in electronic voting and polling functions, with features for sign-in, voting, elections, scoring, and data management.
20. Supports sign-in via buttons and IC cards, with countdown timers and real-time dynamic display of sign-in data.
21. Supports both named and anonymous voting methods; all voting data can be exported and printed with images and text.

22. Includes expanded simultaneous interpretation functionality with options for 4/8/12/16/20/32/64 languages.



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23. Supports web-based control functionality, allowing settings and adjustments to be made through a browser without additional software installation.
  24. Supports expanded Dante protocol audio output for communication with other Dante audio devices.
  25. Features voice separation technology and supports expansion for 8/16/32/64 channels of analog audio output, suitable for infrared simultaneous interpretation systems or recording devices.
  26. Supports expanded USB/SD card automatic recording modules, capable of recording all audio content during the meeting, with up to 2000 hours of continuous recording.
  27. Includes fiber optic expansion interface for long-distance transmission without quality degradation, allowing two remote conference rooms to be merged into one.
  28. Provides various audio output options including 1 XLR, 4 RCA, and 1 TRS, and audio input options including 1 XLR and 2 RCA, with independent volume adjustment.
  29. Supports input for fire alarm signals, remote video conferences, background music, or other auxiliary audio sources.
  30. Supports connection of up to 150 chairman units, with the chairman unit having priority functions and the ability to close other speaking representative units.
  31. Features intelligent identity recognition, allowing approval or denial of any unit's request to change its identity to chairman, VIP, or representative.
  32. Supports online setting and modification of unit identities, with options to reassign and configure chairman, VIP, and representative identities as needed.
  33. Any chairman or representative unit can be set as a VIP unit, with VIP speech having no restrictions, up to 150 VIP units.
  34. Includes a factory reset function for restoring to default settings to prevent parameter misconfiguration.
  35. Supports display menus in Simplified Chinese, Traditional Chinese, and English, with customizable menu languages.
  36. The system supports merging and splitting conference rooms, suitable for various meeting applications.
  37. Includes an AC100V~240V universal power supply and voltage regulation system to ensure safe
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and stable operation under unstable voltage conditions.

### 2.3 Technical Parameters

Working Power Supply	AC100~240V 50/60Hz
Power Consumption	Static Power Consumption 10W, Maximum 200W
System Capacity	240 Units per Main Unit, Expandable to 76,800 Units
Unit Interface	6 x 8-Pin Ports and 2 x Network Ports (or 8 x Network Ports)
Display Screen	4.5-Inch Capacitive Touch Screen
Display Menu	Simplified Chinese, Traditional Chinese, English (Selectable)
Frequency Response	20Hz~20KHz
Signal-to-Noise Ratio	>96 dB
Dynamic Range	106dB
Total Harmonic Distortion	< 0.05%
Output Impedance	47 K $\Omega$
Audio Input	RCA $\times$ 2 +20dB XLR $\times$ 1 +10dB
Audio Output	Balanced Output XLR $\times$ 1 +10dB Main Output RCA RCA $\times$ 2 +20dB Auxiliary Output RCA $\times$ 2 +20dB 6.35mm TRS Output $\times$ 1 +20dB
Video Input	Expandable HDMI $\times$ 4
Video Output	Expandable HDMI $\times$ 1
Pixel Bandwidth	225MHz
Resolution	1920@1080 60Hz
Video Bandwidth	2.25Gbps
Video Control	RS-485 Phoenix Connector / RS-232
Voting and Polling Function	Depending on the model
Simultaneous Interpretation Function	Depending on the model (up to 8/16/32/64 channels)

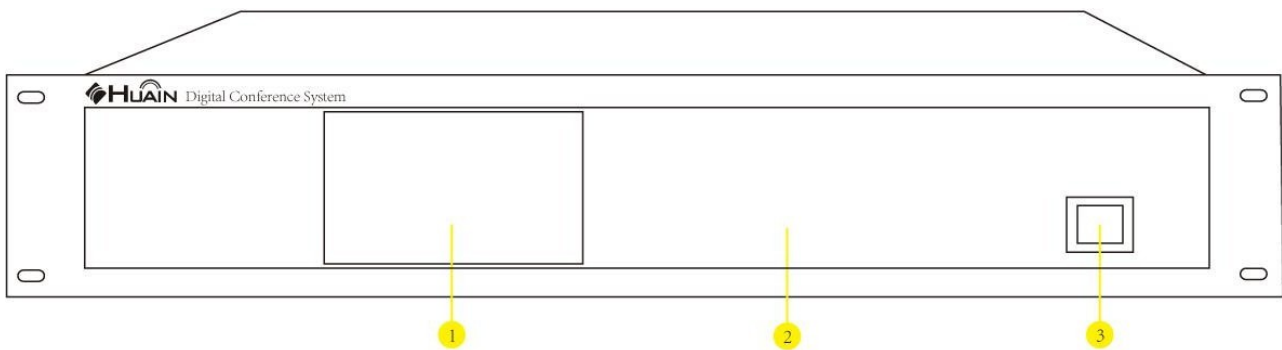


Control Interface	RS-232
Dante Protocol	Expandable
Recording Function	Expandable USB recording
Dual-Machine Hot Backup	Expandable USB recording
Color	Dark gray
Installation	Suitable for 19-inch standard rack

### 3、Product Introduction

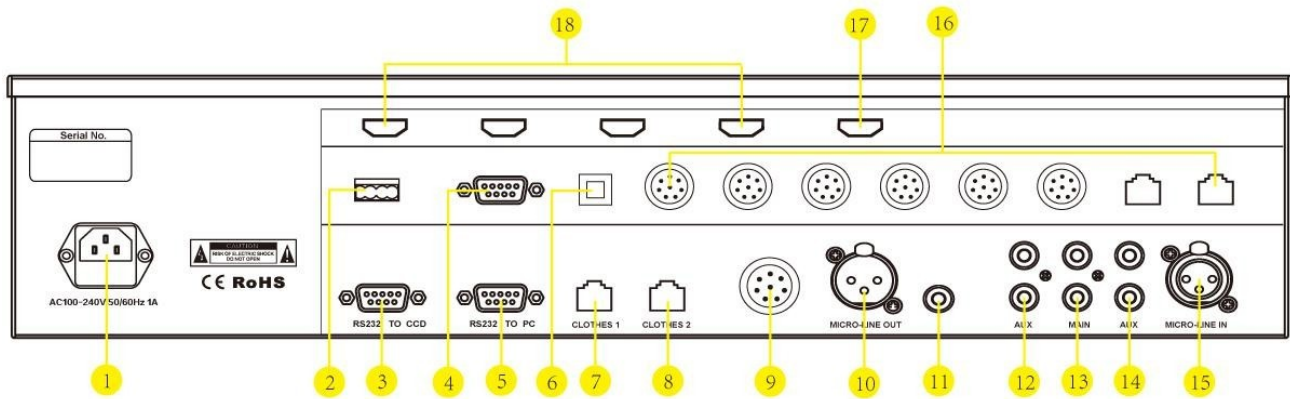
#### 3.1 Product Interface Introduction

##### Front Panel



- 1、TFT Touch Screen: 4.5-inch high-definition TFT touch screen, dynamically displays meeting information.
- 2、Aluminum Glass Panel: Aluminum alloy panel with embedded touch glass.
- 3、Power Switch Button: When the switch is up at position 1, it represents the power-on state; when down at position 0, it represents the power-off state.

##### Rear Panel



1. Power Interface: Connects to AC100~240V 50/60Hz power supply, includes spare fuse.
2. RS-485 Interface (CCD): Connects to camera control interface using RS-485 (+ G -).
3. RS-232 Interface (CONTROL): Connects to third-party control equipment.
4. RS-232 Interface (CCD): Connects to camera control interface using RS-232.
5. RS-232 Interface (PC): Connects to PC for computer control.
6. Fiber Optic Interface: For long-distance audio transmission without signal degradation (custom function, not standard).
7. Conference Service Network Interface: Connects to conference service screen (custom function, not standard).
8. Dante Network Interface: Enables communication with other Dante audio devices (custom function, not standard).
9. Dual Machine Backup Interface: Allows cascading two conference hosts for hot backup functionality.
10. MIC Audio Output (MIC/LINE-OUT): Balanced audio output interface for connecting to amplification systems.
11. TRS Audio Output Interface: 6.35mm audio output interface for connecting to amplification systems.
12. RCA Audio Input (AUX IN): System audio input interface for connecting third-party audio sources.
13. RCA Main Audio Output (MAIN OUT): Main system volume output interface.
14. RCA Auxiliary Audio Output (AUX OUT): Auxiliary audio output interface.
15. MIC Audio Input (MIC/LINE-IN): Balanced audio input interface for connecting third-party

audio sources.

16. 8-Channel Conference Unit Interface: Includes 6 8-pin interfaces and 2 network ports (customizable to 8 network ports).

17. HD Video Output Interface: 1 HDMI interface (customizable to 4 HDMI or SDI output interfaces, optional).

18. HD Video Input Interface: 4 HDMI interfaces (customizable to SDI interfaces, optional).

### 3.2 System Connection Diagram

